

I claim

1. A self engaging orthodontic bracket for attaching an archwire to a tooth comprising:

5 a body including a base for attachment to the tooth, the base having an occlusal-gingivally extending opening, a lingual vertical slot, a pair of laterally spaced gingival tie wings and a pair of laterally placed occlusal tie wings, said gingival and occlusal tie wings projecting from a labial surface of said body, said occlusal tie wings defining two vertical grooves for receiving two arm members of a locking shutter through said occlusal tie wings;

10 an archwire slot extending mesiodistally across said body and between the gingival and occlusal tie wings at opposed mesial and distal sides of said body to accommodate the archwire;

15 a resilient locking shutter including a lingual guide bar slidably received in said lingual vertical slot and two laterally spaced apart resilient arm members slidably received in said vertical grooves, the locking shutter being movable between an open position in which placement and removal of said archwire is facilitated and a closed position in which placement and removal of said archwire is inhibited;

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retaining means to releasably retain ^{said arm members} ~~said arms~~ in said closed position.

2. A self engaging orthodontic bracket for attaching an archwire to a tooth comprising:

25 a body including a base for attachment to the tooth, the base having an occlusal-gingivally extending opening, a lingual vertical slot, a pair of laterally spaced gingival tie wings and a pair of laterally placed occlusal tie wings, said gingival and occlusal tie wings projecting from a labial surface of said body, said gingival tie wings defining two vertical grooves for receiving two arm members of a locking shutter through said gingival tie wings;

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an archwire slot extending mesiodistally across said body and between the gingival and occlusal tie wings at opposed mesial and distal sides of said body to accommodate the archwire;

a resilient locking shutter including a lingual guide bar slidably received in said lingual vertical slot and two laterally spaced apart resilient arm members slidably received in said vertical grooves, the locking shutter being movable between an open position in which placement and removal of said archwire is facilitated and a closed position in which placement and removal of said archwire is inhibited;

and

retaining means to releasably retain ^{said arm members} ~~said arms~~ in said closed position.

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- A self engaging orthodontic bracket according to claim 1, wherein the retaining means is a dome shape notch formed in a gingival wall of said gingival tie wings.
- A self-engaging orthodontic bracket according to claim 3, wherein said notch accommodates the labial portions of the arm members when the shutter is in the closed position.
- A self engaging orthodontic bracket according to claim 2, wherein the retaining means is a dome shape notch formed in an occlusal wall of said occlusal tie wings.
- A self-engaging orthodontic bracket according to claim 5, wherein said notch accommodates the labial portions of the arm members when the shutter is in the closed position.
- A self-engaging orthodontic bracket according to claim 1 ~~or claim 2~~; wherein the lingual guide bar includes an upper vertical end section, a tapered region and a broadened lower section for strength.
- A self-engaging orthodontic bracket according to claim 1 ~~or claim 2~~; wherein the lingual guide bar includes a plurality of projecting members formed thereon, and said body includes complimentary depressions formed thereon for releasably accepting said projecting members.

a 9. A self-engaging orthodontic bracket according to claim 1 ~~or claim 2~~, wherein the body further defines a resting groove located below or above the archwire slot for retaining the arm when the shutter is in the open position.

Sub B2 10. A self-engaging orthodontic bracket according to claim ~~1~~⁵, wherein the guide bar is formed of resilient stainless steel, an alloy of nickel or titanium or other flexible material.

11. A self-engaging orthodontic bracket according to claim 1, wherein the arms are joined at their gingival ends by a horizontal connector. 10

12. A self-engaging orthodontic bracket according to claim ~~2~~¹⁰, wherein the arms are joined at their occlusal ends by a horizontal connector.

10 Sub B3 13. A self-engaging orthodontic bracket according to claim 1 wherein the occlusal tie wings prevent labial distortion of the arm members.

14. A self-engaging orthodontic bracket according to claim 2 wherein the gingival tie wings prevent labial distortion of the arm members.

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